

[54] **SUBSTRATE CONSISTING OF  
REGENERATED COLLAGEN FIBRILS AND  
METHOD OF MANUFACTURING SAME**

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[57] **ABSTRACT**

A substrate consisting essentially of regenerated colla-  
gen fibrils is provided which is in the form of a bead, or  
microsphere and comprises irregularly entangled regen-  
erated collagen fibrils each having a diameter of  
10-1000 mμ and an aqueous solution existing between  
the regenerated collagen fibrils, the content of the re-  
generated collagen fibrils being 20-0.01 wt. %. The  
substrate can be used for cell culture or for measuring  
adhesion activity of blood platelet.

According to one method of manufacturing the colla-  
gen beads, an acidic aqueous collagen solution is dis-  
persed in a water-immiscible organic solvent in the form  
of numerous droplets to form an emulsion, and the  
droplets are then coagulated by addition of a water-mis-  
cible organic solvent and an alkali to the emulsion.

According to another method of manufacturing the  
collagen beads or microspheres, a neutral collagen solu-  
tion is dispersed in a water-immiscible organic solvent  
in the form of numerous droplets to form an emulsion,  
and the droplets are then coagulated by raising the  
temperature of the emulsion to 30° C.-40° C. The colla-  
gen beads or microspheres prepared by the methods  
described above may be cross-linked by hexamethylene-  
diisocyanate or glutaraldehyde.

**9 Claims, 2 Drawing Figures**

